
DEPARTMENT OF THE ARMY 10442.TD
CORPS OF ENGINEERS, TULSA DISTRICT AUG 1992
TULSA DISTRICT GUIDE SPECIFICATIONS

SECTION 10442

INTERIOR SIGNAGE

1 GENERAL

1.1 SUMMARY (NOT APPLICABLE)

1.2 REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by the basic designation only.

FEDERAL SPECIFICATIONS (FS)

FS L-P-391 (Rev D) Plastic Sheets, Rods and Tubing,
Rigid Cast, Methacrylate (Multi-application)

AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM)

ASTM B 211 (1988) Aluminum and Aluminum-Alloy Bar, Rod,
and Wire

ASTM B 221 (1988) Aluminum-Alloy Extruded Bars, Rods,
Wire, Shapes, and Tubes

ASTM C 1036 (1985) Flat Glass

AMERICAN NATIONAL STANDARD INSTITUTE (ANSI)

ANSI A117.1 Making Buildings and Facilities Accessible to
and Usable by Physically Handicapped People
FLAT GLASS MARKETING ASSOCIATION (FGMA)

FGMA-01 Glazing Manual

MILITARY SPECIFICATION (MS)

MS MIL-M-43719 (REV B) Marking Materials and Markers,
Adhesive, Elastomeric, Pignmented

1.3 SUBMITTALS

Government approval is required for submittals with a "GA" designation; submittals with a "FIO" designation are for information only. The following shall be submitted in accordance with Section 01300 SUBMITTAL DISCRIPTIONS:

SD-04 Drawings

Signs; FIO.

Shop Drawings shall be submitted and shall clearly show materials, typographic layouts, sizes, methods, finishes, anchorages, and other details

of construction as well as relation to the supporting and adjacent work where applicable. Drawings shall include: typical layouts of each sign type showing graphic quality, letterforms, symbols, and type spacing.

SD-06 Instructions

Signs; FIO.

Printed instructions for installation of the signs, including preparation of wall or door surfaces, mounting techniques, and recommended adhesives, tapes, or fasteners. Instructions shall include the recommended type of cleaning equipment and materials, cleaning methods, and cleaning cycles.

SD-14 Samples

Signs; FIO.

Submit for approval one full size sample of each sign type in the quality and color specified.

1.4 DELIVERY AND STORAGE

Deliver signs to the site in manufacturer's original wrappings and packages clearly labeled with the manufacturer's name, brand name, size and related information. Each sign shall be individually packaged. Store in a safe, dry, clean, and well ventilated area, protected from damage, soiling, and moisture. Store packages flat. Do not open containers until needed for installation unless verification inspection is required. Protective paper shall be removed only as necessary during fabrication, inspection, or installation in order to avoid scratching, chipping, or crazing the acrylic sheets.

2 PRODUCTS

2.1 MATERIALS

2.1.1 Framing Members

Framing members, concealed and exposed, shall be extruded aluminum alloy 6063-T5 conforming to [ASTM B 221](#). Welded joints shall be heliarc welded.

2.1.2 Finishes

Aluminum used for concealed framing of sign shall have a mill finish. Aluminum used for exposed surfaces shall have [[a [light] [medium] [dark] bronze] [an aluminum color] anodized finish. Anodized finish shall be AA-03 designation [AA-M10-C22-A32, Architectural Class II (0.4 mil to 0.7 mil) for integral color] [AA-M10-C22-A31, Architectural Class II (0.4 mil to 0.7 mil) for clear (natural) color.]] [an organic color coating conforming to [AAMA 605.2](#), color - [_____]. Organic coating shall have a total dry film thickness of not less than 1.2 mils.]

2.1.3 Fastener

Exposed metal fasteners shall be hardened aluminum [ASTM B 211](#), 6061, T6 Alloy.

2.1.4 Adhesives and Adhesive Tapes

Adhesives and adhesive tapes required for plastics, glass, and metals shall be the type recommended by the sign manufacturer.

2.1.5 Plastic

Acrylic plastics shall conform to **FS L-P-391**, Item A (plastic sheet), Type I (general purpose). Clear face sheets shall be Grade B (matte finish). Colored, opaque face plates and plaques shall be Grade C (smooth finish).

2.1.6 Letter Boards

Changeable letter boards for building and floor directory signs shall be pre-slotted, nonfading, washable vinyl which accept molded plastic letters (white in color) with tabs that align the letters in the slots. Boards shall be 3/16-inch to 1/4-inch thick.

2.1.7 Glass

Glass shall be polished clear plate glass with clean cut edges conforming to **ASTM C 1036**. All glazing work shall be performed in accordance with applicable standards of the **FGMA-01**.

2.1.8 Paints and Inks

Paints and inks shall be suitable for the surface material on which they are to be applied and as recommended by the manufacturer of the paint or ink. Prime coats or other surface pretreatments, where applicable, shall be included in the work. Paints, inks and finishes shall not cause discoloration, deterioration or delamination of any materials used in the fabrication. Paints may be alkyd, acrylic, epoxy, or urethane enamel.

2.1.9 Inserts

Inserts for insert panels of office identification signs [may be one of the following:] [shall be:]

- a. Die-cut vinyl letters applied to 0.15 rigid vinyl film.
- b. Dry-transfer letters applied to paper card stock.
- c. Typeset message photographically enlarged to size and mounted on paper card stock.
- d. Typewritten message photographically enlarged or used at actual size.

2.1.10 Letterforms and Graphics

Vinyl sheeting for die-cut graphics shall have a .003 to .006 film thickness and shall conform to **MS MIL-M-43719**. The sheeting shall include a precoated pressure sensitive adhesive backing (Class 1) or positionable pressure sensitive adhesive backing (Class 3).

2.2 SIGN FABRICATION

Signs and sign components shall be shop fabricated, complete and ready for installation. Sign components shall be cut clean. Rounded corners, cut or ragged edges, edge build-up, bleeding or imperfections in the surfaces of

the acrylic sheet will not be acceptable. Signs, other than building directory signs, shall be [clear matte acrylic plastic that is sub-surface printed with both the message and background color] [matte, opaque colored acrylic plastic with top surface printed message] [laminated acrylic plastic with engraved message], 1/8-inch minimum thickness (including backing plate) sub-surface printed face plates shall be laminated to a backing plate. Signs shall conform to ANSI A117.1.

2.2.1 Die-Cutting

Die-cutting shall be executed in such a manner that all edges and corners of finished letterforms and graphics shall be true and clean. Letterforms and graphics with rounded positive or negative corners, nicked, cut or ragged edges, shall not be used.

2.2.2 Letters and Graphics

Applied die-cut letters and graphics shall be permanently affixed to sign surfaces in such a manner that all letter surface and edge areas are tightly and evenly adhered to the sign surface.

2.2.3 Silk Screening

Silk screened images shall be executed from photo screens prepared from typesetters reproductions or original art. Typesetter's reproductions shall not be smaller than 50 percent of the actual size specified. No hand-cut screens will be accepted. Original art is defined as artwork that is a first-generation reproduction of the specified art.

2.2.4 Typeset messages

Typeset messages shall be prepared by photo-typesetting equipment. Typesetters' proofs shall not be enlarged more than three times for use as a graphic insert.

2.2.5 Photographic enlargements

Photographic enlargements or "photostats" shall be executed on matte or semi-gloss prepared paper. The enlarged image shall be sharp, clean, free of chemical discoloring, and shall be without dust spots.

2.2.6 Color

The colors for sign [background] [face laminate], letters, and numbers are indicated in the paragraph "SIGN STANDARDS" and shall match the following colors:

Color

Color Number

| | | | | |
|--------|----|--------|----|--------|
| White[|] | Black[|] | Blue [|
|] [|][|] [|][|] [|
|] | | | |][|

2.2.7 Letterforms

Letterforms, including numbers, shall be helvetica medium style, [upper] [and lower] case, and [1/2] [1] [1-1/2] [] -inch[es] high, unless otherwise specified. Edges and corners of finished letterforms shall be photographically precise, crisp, clean and free of ticks, discontinuous curves, line wave, cut or ragged edges, edge built-up, bleeding, surface

pinholes and other imperfections. All letterforms shall conform to the prescribed letterform proportions. Alignment of letterforms shall maintain a horizontal baseline. Letter spacing shall be normal. Expanded or condensed spacing is not acceptable.

2.3 SIGN TYPES

2.3.1 General

Signs shall be as shown on the drawings and as specified below.

2.3.2 Building Directory Sign

Directory shall be [one-] [two-] door style. Doors shall be [sliding plate glass] [swinging type, plate glass with aluminum frames, mounted with full length piano hinges.] Directories shall be furnished complete with all hardware including keyed cylinder lock.

2.3.2.1 Type AA1

Directory shall consists of a permanent header panel with the name of the [building] [major organization [and emblem] in the building], and a directory section that lists each tenant. The directory section shall be a changeable letter board. Sign design shall be as follows:

a. Colors: White letters on standard [black] [blue] background [; emblem in full color].

b. Dimensions: 3'-0" x 6'-0".

c. Message:

Heading - Upper and lower case helvetica medium, 2" capital letter height, flush left.

Secondary Heading - Upper and lower case helvetica regular, 2" capital letter height, flush left.

The heading area shall accommodate two lines with a maximum line length of 30 characters.

Text - Upper and lower case helvetica medium, 1/2" capital letter height, flush left. The text area shall accommodate three columns of 19 lines each, with a maximum line length of 45 characters.

d. Emblem: Authorized organizational emblem as furnished by the Contracting Officer, 4" x 4", upper left corner.

2.3.2.2 Type AA2

The directory shall be located in the main entrance lobby and shall consist of a permanent header panel with the name of the building or the major organization in the building, and a directory section that lists each tenant. The directory section shall be a changeable letter board. Sign design shall be as follows:

a. Colors: White letters on standard [black] [blue] background.

b. Dimensions: 3'-0" x 4'-0".

c. Message:

Heading - Upper and lower case helvetica medium, 2" capital letter height, flush left.

Secondary Heading - Upper and lower case helvetica medium, 2" capital letter height, flush left.

The heading area shall accommodate two lines with a maximum line length of 30 characters.

d. Text - Upper and lower case helvetica medium, 1/2" capital letter height, flush left. The text area shall accommodate two columns of 19 lines each, with a maximum line length of 45 characters.

2.3.2.3 Type AA3

Floor directories shall be located in [the elevator lobbies of each floor] [and] [at the major stairway landings]. The floor directory shall consist of a permanent header panel with the floor number, and an insert panel that lists each tenant on the floor. The insert panel shall be a clear sleeve which will accept a paper or plastic insert listing the names and room numbers of the tenants. The insert may be a 8-1/2" x 11" typeset or typewritten insert sheet. Sign design shall be as follows:

a. Colors:

Header panel - White numbers on standard [black] [blue] background.

Insert panel - [Black] [] letters and number on [white] [] background.

b. Dimensions: 1'-6" x 1'-0".

c. Message:

Floor number - Helvetica medium, 3" number, flush left.

Insert, headings - Upper and lower case helvetica medium, 3/8" capital letter height, flush left.

Insert, text - Upper and lower case helvetica regular, 3/8" capital letter height, flush left.

The insert message area shall accommodate 15 lines with a maximum line length of 35 characters.

2.3.2.4 Assortment of letters

Assortment of letters shall include three entire sets of the alphabet with emphasis on the most used characters and three sets of numbers.

2.3.2.5 Directory Listing

The Contractor shall install the entire directory listing on the Building Directory and Floor Directories from [the listing furnished by the Contracting Officer.] [the following listing:]

Building Directory:

Room or Tenant TitleRoom Number

Floor Directory, Floor No. []

Room or Tenant TitleRoom Number

2.4 OFFICE IDENTIFICATION SIGNS

2.4.1 Type BB1

Type BB1 identifies a major office or area in a building, such as a wing or annex, and consists of a permanent header panel with the room number or wing or annex designation, and an insert panel which identifies the tenant. The insert panel shall be a clear sleeve which will accept a paper or plastic insert with the name of the tenant. Sign design shall be as follows:

a. Colors:

Header panel - [White] [] letters and numbers on standard [black] [blue] background.

Insert panel - [White] [] letters on standard [black] [blue] background, or black letters on white background.

b. Dimensions: 1'-3" x 1'3".

c. Message:

Heading - Upper and lower case helvetica medium 1-1/2" capital letter height, flush left. The heading area shall accommodate two lines with a maximum line length of 12 characters.

Tenant name - Upper and lower case helvetica, medium, 3/4" capital letter height, flush left.

Secondary information - Upper and lower case helvetica regular, 3/4" capital letter height, flush left.

The insert area shall accommodate four lines with a maximum line length of 24 characters.

2.4.2 Type BB2

Type BB2 (Wall Mounted) shall consist of a permanent header panel with the room number and an insert panel which identifies the tenant. The insert panel shall be a clear sleeve which will accept a paper or plastic insert with the name of the tenant. Sign design shall be as follows:

a. Colors:

Header panel - White number on standard [black] [blue] background.

Insert panel - [Black] [blue] letters on [white] [] background.

b. Dimensions: 9" x 9".

c. Message:

Room number - Helvetica medium, 1-1/2" numbers, flush left.

Tenant name - Upper and lower case helvetica medium, 1/2" capital letter height, flush left.

Secondary information - Upper and lower case helvetica regular, 1/2" capital letter height, flush left.

The insert area shall accommodate four lines with a maximum line length of 21 characters.

2.4.3 Type BB3

(Projecting Sign) shall consist of a permanent header panel with the room number and an insert panel which identifies the tenant. The insert panel shall be a clear sleeve which will accept a paper or plastic insert with the name of the tenant. Sign design shall be as follows:

a. Colors:

Header panel - [White] [] number on standard [blue] [] background.

Insert panel - [Black] [] letters on [white] [] background.

b. Dimensions: 6" x 9".

c. Message:

Room number - Helvetica medium, 1-1/2" numbers, flush left.

Tenant name - Upper and lower case helvetica medium, 1/2" capital letter height, flush left.

Secondary information - Upper and lower case helvetica regular, 1/2" capital letter height, flush left.

The insert area shall accommodate two lines with a maximum line length of 21 characters.

2.4.4 Type BB4

Type BB4 (Room Number Sign) shall consist of a permanent header panel only (without an insert panel). Mounting height shall be 5'-6" (top edge of sign) above the floor. Sign design shall be as follows:

a. Colors:

Header panel - [White] [] number on standard [black] [blue] [] background.

b. Dimensions: 3" x 9".

c. Message:

Room number - Helvetica medium, 1-1/2" numbers, flush left.

2.4.5 Type BB7

Service Identification Sign (Type BB7) identifies restrooms, telephones, and other services. Sign design shall be as follows:

a. Colors:

Symbols - [Black symbol] [red symbol] [..... symbol] (where appropriate) on [white] [] background.

b. Dimensions: 9" x 6".

c. Message:

[Service name - Helvetica medium upper and lower case, 1" capital letter height, centered.

The message line will accommodate a maximum of 7 tiles.]

[Service name - Helvetica medium upper and lower case, 3/4" capital letter height, centered.

The message line will accommodate a maximum of 9 tiles.]

2.4.6 Directional Signs

Messages shall be placed flush left or flush right to the arrow. Arrows pointing left, up, or down, shall have flush left messages, and arrows point to the right shall have flush right messages. The arrow shall be centered in the space between the message and the edge of the sign.

2.4.6.1 Type CC1 (Ceiling Mounted)

Sign design shall be as follows:

a. Colors: [White] [] letters, numbers and arrows on standard [black] [blue] [] background.

b. Dimensions: Slats - 4" x 2'0".

c. Message: Upper and lower case helvetica medium, 1-1/2" capital letter height, flush left or right (to arrow).

The message area of each slat shall accommodate a maximum of 14 characters.

d. Arrow: Standard tile, 1-1/2" high, placed left or right as appropriate.

2.4.6.2 Type CC2 (Wall Mounted)

Sign design shall be as follows:

a. Colors: [White] [] letters, numbers and arrows on standard [blue] [] background.

b. Dimensions: Slats - 2-3/4" x 1'6".

c. Message: Upper and lower case helvetica medium, 1" capital letter height, flush left or right (to arrow).

The message area of each slat shall accommodate a maximum of 17 characters.

d. Arrow: Standard tile, 1" high, placed left or right as appropriate.

2.4.7 Regulatory Signs

Symbols, such as for "No Smoking", shall be black with a standard red circle and bar on a white background. Written messages are not required.

2.4.7.1 Type DD1

- a. Dimensions: 9" x 9".
- b. Symbol: 7-1/2" x 7-1/2" square.

2.4.7.2 Type DD2

- a. Dimensions: 6" x 6".
- b. Symbol: 5" x 5" square.

2.5 SIGNAGE SCHEDULE

| Sign Location | Room Type | Number | Message | Remarks |
|------------------|--------------|--------|---------|---------|
|------------------|--------------|--------|---------|---------|

3 EXECUTION

3.1 GENERAL

+Signs shall be mounted in place after all other interior work in the immediate vicinity, including painting, has been completed. Installed signs shall be uniform and secured.

3.2 INSTALLATION PREPARATION

Atmospheric conditions and surface preparation for wign mounting shall be in conformance with the manufacturer's recommendations.

3.3 INSTALLATION

3.3.1 Height and location

Height and location of the signs shall be as directed by the Contracting Officer unless otherwise specified. Signs shall be mounted using vinyl tape, adhesive, or screws, as recommended by the manufacturer for the specific application. Screw attached signs shall be attached with two [concealed] [exposed] non-ferrous screws, one centered at each end in a manner that will not interfere with the message. Signs larger than two inches in height shall be attached with four screws, equally spaced, one in each corner. Exposed screws shall have round heads. Color of screws shall be [brass] [chrome plated] [match the background color of the sign].

3.3.2 Sign Type BB7

Restroom door identification signs shall be centered on the door. Signs with the handicapped symbol shall be centered and located beneath the identification sign on doors of restrooms having handicapped provisions.

3.3.3 Directional Signs

CC1 and CC2 shall be located at each decision point opposite the elevators, opposite the stairways, and at each corridor intersection. Directional signs shall point to room numbers.

3.3.4 Building [and] [floor] directories

Building and floor directories shall be secured to the wall by means of concealed screws or bolt hangers.

3.4 CLEANUP

Signs and adjacent surfaces shall be free of tape, adhesive, packing paper, dirt, smudges, scratches, discoloration, or other foreign material or defect. The Contractor shall clean signs in accordance with the manufacturer's instructions.

ADDITIONAL NOTES

A. This guide specification follows the guidance for interior building signs listed in TM 5-807-10 (December 1983), "Signage", and AFP 88-40, "Sign Standards".

B. If the Using Agency furnishes the initial inserts for the office identification signs, then delete this paragraph. If the Contractor, then select one of the bracketed options, depending on whether the Contractor will have the option of furnishing one of the letterform option (a through d) of his choice. If the Contractor doesn't have the option, select one of the letterform option (a through d) and delete the rest.

C. For sign color, select "black" for Army projects and "blue" for Air Force projects unless otherwise requested by the Using Agency. Locations of signs shall be indicated on the drawings. Open brackets [] for color are to allow the designer to coordinate the signage with the Building Color Scheme.

--End of Section--